

Crawford, G. B., *et al* (2009). **Estimating survival in patients with cancer receiving palliative care: Is analysis of body composition using bioimpedance helpful?** *Journal of palliative medicine*, 12(11), 1009-1014.

Elevated metabolic rate and accumulation of body fluid are indicators of a poor prognosis in patients with cancer receiving palliative care. Because BIA is simple for clinicians to use, is non invasive, and allows early detection of these parameters, it has the potential to improve prognostication. The fluid status of the patients were measured by using InBody 720.

Kazumasa.T., *et al* (2011). **The effects of androgen deprivation therapy on lipid metabolism and body composition in Japanese patients with prostate cancer.** *Japanese Journal of Clinical Oncology*, 41(4), 577-581.

Progression of androgen deprivation therapy for prostate cancer patients were observed by using InBody. The volume of fat and visceral fat was observed and it was significantly increased 6 months after the treatment and continued to increase until 12 months. On the other hand, skeletal muscle was significantly decreased during the same period. The study is concluding that androgen deprivation therapy change the body composition and lipid profile of men with prostate cancer. Though the therapy have possibility to develop metabolic syndrome, observation of lipid status of the patients is required.

Ogawa, H., *et al* (2011). **InBody 720 as a new method of evaluating visceral obesity.** *Hepato Gastroenterology-Current Medical and Surgical Trends*, 58(105), 42.

This study was conducted to assess the efficacy of bioelectrical impedance analysis by InBody 720 as a new tool for measuring visceral fat area. A total of 53

consecutive patients elected to undergo surgical resection of primary gastric cancer received preoperative measurement of visceral fat area at the umbilical level with both computed tomography and bioelectrical impedance analysis by InBody 720. Visceral fat area values measured by InBody 720 significantly correlated with those by computed tomography ($R = 0.759$). InBody 720 was shown to be useful as a more convenient substitute for computed tomography when measuring visceral fat area.

Huang, Q., *et al* (2005). **Hypoleptinemia in gastric cancer patients: relation to body fat mass, insulin, and growth hormone.** *Journal of Parenteral and Enteral Nutrition*, 29(4), 229-235.

Low serum leptin levels in gastric cancer patients depended on the percentage of fat mass. Serum leptin level was also correlated to growth hormone and insulin level. However, chronic high growth hormone and low insulin levels may inhibit the leptin secretion.

Huang, Q., *et al* (2005). **Change of the growth hormone–insulin-like growth factor-I axis in patients with gastrointestinal cancer: related to tumour type and nutritional status.** *British Journal of Nutrition*, 93(06), 853-858.

Changes in the growth hormone (GH)–insulin-like growth factor-I (IGF-I) axis, especially acquired GH resistance, develop in many severe illnesses, including cachexia. To study changes in the GH–IGF-I axis in patients with various cancer cachexia, biochemical markers and body composition parameters were measured on different type of cancer patients. Each cancer patients had different GH regulation status, and it is considered to be derived from the difference of body compositions. The study is suggesting that the cancer patients require different treatment method according to the type of the cancer.